

Subpart 160.135—Lifeboats (SOLAS)

SOURCE: USCG-2010-0048, 76 FR 62987, Oct. 11, 2011, unless otherwise noted.

§ 160.135-1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast Guard approval of a lifeboat.

§ 160.135-3 Definitions.

In addition to the definitions in the IMO LSA Code (incorporated by reference, see §160.135-5 of this subpart), in this subpart, the term:

Commandant means the Commandant (CG-ENG-4), U.S. Coast Guard, 2100 2nd Street, SW., Stop 7126, Washington, DC 20593-7126.

Fiberglass Reinforced Plastic (FRP) means a composite structural material formed by electrical-grade glass fibers in Coast Guard accepted catalyst activated resin.

Full load means the weight of the complete lifeboat including all required equipment, provisions, fuel, and the number of persons for which it is approved. This is also known as the “condition B” weight.

Independent laboratory has the same meaning as 46 CFR 159.001-3. A list of accepted independent laboratories is available from the Commandant and online at <http://cgmix.uscg.mil>.

Light load means the weight of the complete lifeboat empty and does not include fuel, required equipment, or the equivalent weight of persons. This is also known as the “condition A” weight.

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01-15(b). The “cognizant OCMI” is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

Positive Stability means the condition of a lifeboat such that when it is displaced a small amount in any direction from upright, it returns on its own to the position before displacement.

SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.

§ 160.135-5 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at Commandant (CG-ENG-4), U.S. Coast Guard, 2100 2nd Street, SW., Stop 7126, Washington, DC 20593-7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959.

(1) ASTM A 36/A 36M-08, Standard Specification for Carbon Structural Steel, (approved May 15, 2008), IBR approved for §§160.135-7 and 160.135-15 (“ASTM A 36”).

(2) ASTM A 276-08a, Standard Specification for Stainless Steel Bars and Shapes, (approved October 1, 2008), IBR approved for §160.135-7 (“ASTM A 276”).

(3) ASTM A 313/A 313M-08, Standard Specification for Stainless Steel Spring Wire, (approved October 1, 2008), IBR approved for §160.135-7 (“ASTM A 313”).

(4) ASTM A 314-08, Standard Specification for Stainless Steel Billets and Bars for Forging, (approved October 1, 2008), IBR approved for §160.135-7 (“ASTM A 314”).

(5) ASTM A 653/A 653M-08, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, (approved July 15, 2008), IBR approved for §§160.135-7, 160.135-11, and 160.135-15 (“ASTM A 653”).

(6) ASTM B 127-05 (Reapproved 2009), Standard Specification for Nickel-Copper Alloy (UNS N04400) Plate, Sheet, and Strip, (approved October 1, 2009), IBR approved for § 160.135-7 (“ASTM B 127”).

(7) ASTM B 209-07, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate, (approved August 1, 2007), IBR approved for § 160.135-7 (“ASTM B 209”).

(8) ASTM D 638-08, Standard Test Method for Tensile Properties of Plastics, (approved April 1, 2008), IBR approved for § 160.135-11 (“ASTM D 638”).

(9) ASTM D 790-07e1, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials, (approved September 1, 2007), IBR approved for § 160.135-11 (“ASTM D 970”).

(10) ASTM D 2584-08, Standard Test Method of Ignition Loss for Cured Reinforced Resins, (approved May 1, 2008), IBR approved for §§ 160.135-11 and 160.135-15 (“ASTM D 2584”).

(11) ASTM D 4029-09, Standard Specification for Finished Woven Glass Fabrics, (approved January 15, 2009), IBR approved for § 160.135-7 (“ASTM D 4029”).

(12) ASTM F 1166-07, Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities, (approved January 1, 2007), IBR approved for §§ 160.135-7 and 160.135-13 (“ASTM F 1166”).

(c) General Services Administration, Federal Acquisition Service, Office of the FAS Commissioner, 2200 Crystal Drive, 11th Floor, Arlington, VA 22202, 703-605-5400.

(1) Federal Standard 595C, Colors Used in Government Procurement, (January 16, 2008), IBR approved for § 160.135-7 (“FED-STD-595C”).

(2) [Reserved]

(d) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, (adopted October 19, 1989), IBR approved for § 160.135-7 (“IMO Res. 658(16)”).

(2) IMO Resolution A.760(18), Symbols Related to Life-Saving Appliances and

Arrangements, (adopted November 4, 1993), IBR approved for §§ 160.135-7 and 160.135-19 (“IMO Res. A.760(18)”).

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7-71 (“IMO LSA Code”), IBR approved for §§ 160.135-3, 160.135-7, and 160.135-13.

(4) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of life-saving appliances, pages 79-254 (“IMO Revised recommendation on testing”), IBR approved for §§ 160.135-7 and 160.135-13.

(5) MSC/Circular 980, Standardized life-saving Appliance Evaluation and Test Report Forms, (February 13, 2001), IBR approved for §§ 160.135-7 and 160.135-13 (“IMO MSC Circ. 980”).

(6) MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006), IBR approved for § 160.135-21 (“IMO MSC.1 Circ. 1205”).

(e) International Organization for Standardization (ISO): ISO Central Secretariat [ISO Copyright Office], Case Postale 56, CH-1211 Geneve 20, Switzerland.

(1) ISO 527-1:1993(E), Plastics—Determination of tensile properties, part 1: General Principles, First Edition (June 15, 1993), IBR approved for § 160.135-11 (“ISO 527”).

(2) ISO 1172:1996(E), Textile-glass-reinforced plastics—Prepregs, moulding compounds and laminates—Determination of the textile-glass and mineral-filler content—Calcination methods, Second Edition (December 15, 1996), IBR approved for §§ 160.135-11 and 160.135-15 (“ISO 1172”).

(3) ISO 14125:1998(E), Fibre-reinforced plastic composites—Determination of flexural properties, First Edition (March 1, 1998), IBR approved for § 160.135-11 (“ISO 14125”).

(f) Military Specifications and Standards, Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, <https://assist.daps.dla.mil/quicksearch/>.

(1) A-A-55308, Commercial Item Description, Cloth And Strip, Laminated Or Coated, Vinyl Nylon Or Polyester, High Strength, Flexible, (May 13, 1997), IBR approved for §§ 160.135-7 and 160.135-15. (“A-A-55308”).

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(2) MIL-C-19663D, Military Specification, Cloth, Woven Roving, For Plastic Laminate, (August 4, 1988), IBR approved for § 160.135-7 (“MIL-C-19663D”).

(3) MIL-P-17549D(SH), Military Specification, Plastic Laminates, Fibrous Glass Reinforced, Marine Structural, (August 31, 1981), IBR approved for § 160.135-11 (“MIL-P-17549D(SH)”).

(4) MIL-R-21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant, (May 25, 1990), IBR approved for § 160.135-11,

§ 160.135-7 Design, construction, and performance of lifeboats.

(a) To seek Coast Guard approval of a lifeboat, a manufacturer must comply with, and each lifeboat must meet, the requirements of the following—

(1) IMO LSA Code, Chapter IV (incorporated by reference, see § 160.135-5 of this subpart) applicable to the type of lifeboat;

(2) IMO Revised recommendation on testing, Part 1/6 (incorporated by reference, see § 160.135-5 of this subpart) applicable to the type of lifeboat;

(3) 46 CFR part 159; and

(4) This subpart.

(b) Each lifeboat must meet the following requirements:

(1) *Design.* (i) Each lifeboat, other than a totally enclosed lifeboat, must be designed to be operable by persons wearing immersion suits.

(ii) Each lifeboat should be designed following standard human engineering practices described in ASTM F 1166 (incorporated by reference, see § 160.135-5 of this subpart). Design limits should be based on a range from the fifth percentile female to the ninety-fifth percentile male values for critical body dimensions and functional capabilities as described in ASTM F 1166. The dimensions for a person wearing an immersion suit correspond to the arctic clothed dimensions of ASTM F 1166.

(2) *Visibility from operator's station.* (i) The operator's station must be designed such that the operator, when seated at the control station, has visibility 360 degrees around the lifeboat, with any areas obstructed by the lifeboat structure or its fittings visible by moving the operator's head and torso.

(ii) The operator, while still being able to steer and control the speed of

the lifeboat, must be able to see the water—

(A) Over a 90 degree arc within 3 m (9 ft, 10 in) of each side of the lifeboat;

(B) Over a 30 degree arc within 1 m (3 ft, 3 in) of each side of the lifeboat; and

(C) Within 0.5 m (1 ft, 8 in) of the entrances designated for recovering persons from the water.

(iii) In order to see a person in the water during recovery or docking operations, a hatch must be provided so that the operator can stand with his or her head outside the lifeboat for increased visibility, provided the operator can still steer and control the speed of the lifeboat.

(3) *Construction.* Each major rigid structural component of each lifeboat must be constructed of steel, aluminum, Fiber Reinforced Plastic (FRP), or materials accepted by the Commandant as equivalent or superior.

(i) *General.* Metals in contact with each other must be either galvanically compatible or insulated with suitable non-porous materials. Provisions must also be made to prevent loosening or tightening resulting from differences of thermal expansion, freezing, buckling of parts, galvanic corrosion, or other incompatibilities.

(ii) *Steel.* Sheet steel and plate must be low carbon, commercial quality, either corrosion resistant or galvanized as per ASTM A 653, coating designation G90 (incorporated by reference, see § 160.135-5 of this subpart). Structural steel plates and shapes must be carbon steel as per ASTM A 36 (incorporated by reference, see § 160.135-5 of this subpart), or an equivalent or superior steel accepted by the Commandant. All steel products, except corrosion resistant steel, must be galvanized to provide high quality zinc coatings suitable for the intended service life in a marine environment. Corrosion resistant steel must be a type 302 stainless steel per ASTM A 276, ASTM A 313 or ASTM A 314 (incorporated by reference, see § 160.135-5 of this subpart) or another corrosion resistant stainless steel of equal or superior corrosion resistant characteristics.

(iii) *Aluminum.* Aluminum and aluminum alloys must conform to ASTM B 209 (incorporated by reference, see § 160.135-5 of this subpart) and be high